

Claims

1. Car body part of sheet metal of an aluminium alloy type AlMgSi, characterised in that in the sheet metal, a substantial part of the elements Mg and Si, which are required to achieve artificial ageing in solid solution, is present in the form of separate Mg₂Si and/or Si particles in order to avoid artificial ageing.
2. Car body part according to claim 1, characterised in that the aluminium alloy contains
0.6 to 1.2 w.% silicon
0.3 to 0.8 w.% magnesium
max. 0.8 w.% copper
max. 0.4 w.% iron
max. 0.3 w.% manganese
max. 0.2 w.% vanadium
and production-related contaminants and aluminium as the remainder.
3. Car body part according to claim 1, characterised in that the aluminium alloy contains
0.25 to 0.60 w.% silicon
0.25 to 0.60 w.% magnesium
0.05 to 0.30 w.% copper
max. 0.40 w.% iron
max. 0.30 w.% manganese
max. 0.20 w.% vanadium
and production-related contaminants, individually max. 0.05 w.%, total max. 0.15 w.%, and aluminium as the remainder.
4. Car body part according to claim 3, characterised in that the aluminium alloy contains 0.30 to 0.50 w.% silicon.
5. Car body part according to claim 3 or 4, characterised in that the aluminium

alloy contains 0.30 to 0.50 w.% magnesium.

6. Car body part according to any of claims 3 to 5, characterised in that the aluminium alloy contains max. 0.20 w.% copper.
7. Car body part according to any of claims 3 to 6, characterised in that the aluminium alloy contains 0.05 to 0.20 w.% iron.
8. Car body part according to any of claims 3 to 7, characterised in that the aluminium alloy contains max. 0.15 w.% vanadium.
9. Car body part according to any of claims 3 to 8, characterised in that the aluminium alloy contains 0.10 w.% manganese.
10. Car body part according to any of claims 1 to 9 as an inner panel of a body element, in particular a bonnet, or a trim part or structural component or reinforcing element arranged in the front part of a car body.
11. Car body part according to any of claims 1 to 9 as a deep-drawn body part with good bending behaviour.
12. Car body or component of car body with at least one first component of sheet metal of a first aluminium alloy (A) and at least one second component of sheet metal of a second aluminium alloy (B), where the first and second aluminium alloys are of type AlMgSi, and after artificial ageing of the body or body part the second component in relation to the first component has lower mechanical strength values, characterised in that at least in the sheet metal of the second aluminium alloy, before artificial ageing of the body or body part, a substantial part of the elements Mg and Si, which are required to achieve artificial ageing in solid solution, is present in the form of separate Mg₂Si and/or Si particles in order to avoid artificial ageing.

13. Car body or component of a car body according to claim 12, characterised in that at least the first aluminium alloy (A) contains
0.6 to 1.2 w.% silicon
0.3 to 0.8 w.% magnesium
max. 0.8 w.% copper
max. 0.4 w.% iron
max. 0.3 w.% manganese
max. 0.2 w.% vanadium
and production-related contaminants and aluminium as the remainder.
14. Car body or component of a car body according to claim 13, characterised in that the second aluminium alloy (B) contains
0.25 to 0.60 w.% silicon
0.25 to 0.60 w.% magnesium
0.05 to 0.30 w.% copper
max. 0.40 w.% iron
max. 0.30 w.% manganese
max. 0.20 w.% vanadium
and production-related contaminants, individually max. 0.05 w.%, total max. 0.15 w.%, and aluminium as the remainder.
15. Car body or component of a car body according to claim 14, characterised in that the second aluminium alloy (B) contains 0.30 to 0.50 w.% silicon.
16. Car body or component of a car body according to claim 14 or 15, characterised in that the second aluminium alloy (B) contains 0.30 to 0.50 w.% magnesium.
17. Car body or component of a car body according to any of claims 14 to 16, characterised in that the second aluminium alloy (B) contains max. 0.20 w.% copper.
18. Car body or component of a car body according to any of claims 14 to 17,

characterised in that the second aluminium alloy (B) contains 0.05 to 0.20 w.% iron.

19. Car body or component of a car body according to any of claims 14 to 18, characterised in that the second aluminium alloy (B) contains max. 0.15 w.% vanadium.
20. Car body or component of a car body according to any of claims 14 to 19, characterised in that the second aluminium alloy (B) contains max. 0.10 w.% manganese.
21. Car body or component of a car body according to any of claims 14 to 20, characterised in that the second components (B) are inner panels of a body element, in particular a bonnet, or trim parts or structural components or reinforcing elements arranged in the front part of a car body.
22. Car body or component of a car body according to any of claims 14 to 20, characterised in that the second components are deep-drawn body part with good bending behaviour.